

temperature of 20 to 80°C using at least one of a mineral acid and an organic acid; and

- iii) recovering ditrimethylolpropane from the still residue after said decomposition.

END
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20. A process according to Claim 19, wherein the ditrimethylolpropane is recovered from acid decomposition products in the still residue after the acid decomposition.

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B₁ D₁
21. A process for recovering ditrimethylolpropane by-produced when producing trimethylolpropane by reacting n-butyraldehyde with formaldehyde in the presence of a basic catalyst, and then separating trimethylolpropane by extraction and distillation, said process for recovering ditrimethylolpropane comprising:

- i) removing high-boiling components having a higher boiling point than that of ditrimethylolpropane, by distillation, from a still residue of the distillation for separating trimethylolpropane;
- ii) after said removing high-boiling components, subjecting a formal compound contained in the still residue to acid decomposition, whereby resulting products of said acid decomposition are formed; and
- iii) subjecting the resulting products of ii) to crystallization using a solvent.

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22. A process according to Claim 21, wherein removal of the high-boiling components having a higher boiling point than that of ditrimethylolpropane, is performed by molecular distillation.

B¹ 23. A process according to Claim 21, wherein the acid decomposition of the formal compound is performed at a temperature of 20 to 180°C using at least one of a mineral acid and an organic acid.

B¹ 24. A process according to Claim 23, wherein at least one compound selected from the group consisting of ~~alcohols~~ and hydroxylamine salts is added to the still residue together with the acid, for the acid decomposition.

sub C₃ > B¹ 25. A process for recovering ditrimethylolpropane by-produced when producing trimethylolpropane by reacting n-butyraldehyde with formaldehyde in the presence of a basic catalyst, and then separating trimethylolpropane by extraction and distillation, said process for recovering ditrimethylolpropane comprising:

- i) subjecting a still residue of the distillation to crystallization using a solvent;
- ii) after said crystallization, subjecting a formal compound contained in the still residue to acid decomposition, whereby resulting products of said acid decomposition are formed; and
- iii) subjecting the resulting products of ii) to crystallization, after said acid decomposition.

B¹ 26. A process according to Claim 25, wherein the acid decomposition of the formal compound is performed at a temperature of 20 to 180°C using at least one of a mineral acid and an organic acid.

27. A process according to Claim 26, wherein the acid decomposition of the formal compound is performed by using an organic acid.

28. A process according to Claim 25, wherein at least one compound selected from the group consisting of alcohols and hydroxylamine salts is added to the still residue together with the acid, for the acid decomposition.

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29. A process for recovering ditrimethylolpropane by-produced when producing trimethylolpropane by reacting n-butyraldehyde with formaldehyde in the presence of a basic catalyst, and then separating trimethylolpropane by extraction and distillation, said process for recovering ditrimethylolpropane comprising:

- i) subjecting a formal compound contained in the still residue of the distillation to acid decomposition;
- ii) removing high-boiling components having a higher boiling point than that of ditrimethylolpropane, by distillation, from the still residue; and
- iii) subjecting the resulting products of ii) to distillation for removal of low-boiling components.

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30. A process according to Claim 29, comprising the further step of performing crystallization, using a solvent, after the removal of the low-boiling components by distillation, in step iii).--